

## Detailed Product Information / Operational Description

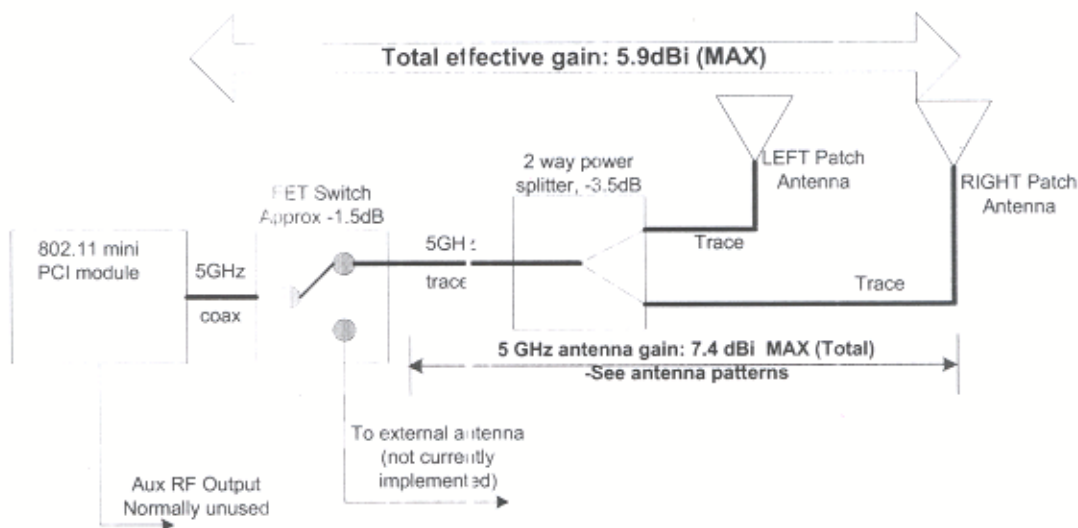
The Airespace radio is an IEEE 802.11 A/B Virtual Access point (VAP) intended to be professionally installed and configured in corporate and industrial environments.

**NOTE: Though the 1200 A/B access point is an 802.11 A/B access point, this report addresses only the 802.11 A (UNII) aspects of the access point. Data supporting the 802.11 B portion of the access point can be found in the Part 15.247 report.**

The access point utilizes integral antennas on the 802.11 A bands. The access point includes two integral 5 GHz patch antennas pointing 180° from each other to create a somewhat omnidirectional 5GHz pattern. The VAP includes only a single 2.4GHz patch antenna (the 2.4 GHz antenna is discussed in the 15.247 report). The effective gain of the 5 GHz antenna path (the antenna switch and the antenna itself) is 5.9dBi. The diagrams below outline the RF path from the output of the mini PCI module within the access point to the integral antennas within the access point. See the antenna patterns included with this application (Note that only the Subpart E, 15.401 UNII 5 GHz portion is covered by this particular report)

There is a provision for attaching external 5 GHz antennas to the access point (which, when implemented will disable the integral antenna by means of the switch) however at this time, since external 5GHz antennas are not included in this certification application, the ability to utilize an external antenna on this band, and even switch the antenna selection switch to the other position will be disabled in the configuration software. The hardware was put in place to support the future use of external 5 GHz antennas once such use is authorized by the commission either by permissive change of new grant.

The access point is powered either by an external 48V power supply or via power over Ethernet.



RF Path Schematics

## Detailed Product Information

The Airespace radio is an IEEE 802.11 B Access point (AP) intended to be professionally installed and configured in corporate and industrial environments.

The device utilizes a mini PCI module manufactured by an outside vendor. At the time of this certification the module had not received FCC approval as a module. For this reason, Airespace is pursuing its own certification.

This product is similar in many respects to the previous Airespace product (FCC ID:QTZVAP1200) the only significant is that this unit incorporates mini PCI 802.11 modules from a different supplier than the previous product(s)

The AP utilizes integral antennas on the 802.11 B band. The AP essentially includes only a single 2.4GHz patch antenna. There are actually two 2.4 GHz antennas. The AP switches rapidly between them and when a signal is detected, the AP uses the antenna offering the best connection. At any one time, there is only one antenna connected to the internal PCI module.

Certification of external antennas is also being requested as part of this certification application. See the separate report that summarizes the test results with external antennas.

The effective gain of the 2.4 GHz internal antenna path (the antenna switch and the antenna itself) is 6.8dBi. The diagrams below outline the RF path from the output of the mini PCI module within the AP to the integral antennas within the AP. See the antenna patterns included with this application (Note that only the Part 15.247 2.4 GHz portion is covered by this particular report)

